



(51) International Patent Classification:

G01N 21/31 (2006.01) G01N 21/65 (2006.01)
G01N 33/50 (2006.01)

(21) International Application Number:

PCT/IN2018/050161

(22) International Filing Date:

22 March 2018 (22.03.2018)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

201741010111 22 March 2017 (22.03.2017) IN

(71) Applicant: ADIUVO DIAGNOSTICS PVT LTD
[IN/IN]; 1/206 NC Balaiah Nagar, Nawabpet, Nellore
524002 (IN).

(72) Inventors: RADHAKRISHNAN, Geethanjali; Villa 2,
Abhimayu Homes, Rajaram Road, Kanathur, Chennai
603112 (IN). KING, John; Number 15 Tansi Nagar 1st
Street, Tamilnadu, Chennai 600042 (IN). U, Meenatchi;
NO: 9 Umar Pullavar Street, Kottakuppam, Villupuram,
District - Vanur Taluk 605104 (IN). GUPTA, Aayush; San-
jeevani Nursing Home, Salar Gunj Gate, Panipet, Haryana
132103 (IN).

(74) Agent: LAKSHMIKUMARAN, Malathi et al.; B6/10,
Safdarjung Enclave, New Delhi 110029 (IN).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP,
KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,
SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,
TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,
MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

(54) Title: DEVICE AND METHOD FOR DETECTION AND CLASSIFICATION OF PATHOGENS

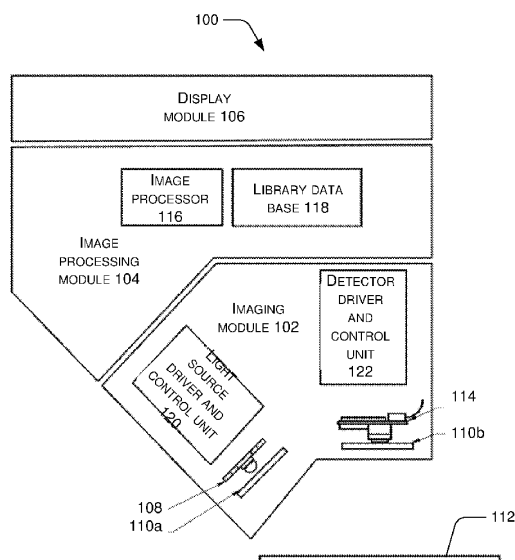


Fig. 1

(57) Abstract: Present subject matter discloses device and methods for detection and classification of pathogens. The device (100) comprises an imaging module (102), image processing module (104), and a display module (106). The imaging module (102) comprises a plurality of light sources (108) to expose a sample to excitation radiation at various wavelengths. A detector (114) in the imaging module (102) is to synchronously capture time-resolved fluorescence emission spectra, time-resolved reflectance, and transmittance spectra at multiple spectral bands from the sample. The image processing module (104) resolves the spectra and compares obtained spectral parameters to set of standard parameters provided in a library data-base (118) to determine a match and, hence, detects and classifies pathogens.

[Continued on next page]

Published:

- with international search report (Art. 21(3))
- in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE